Who creates value creation? Systems for measuring the value and growth of the mergers and acquisitions (M&A) market in France since the 1990's

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Summary:

This article examines the unprecedented rise in the number of corporate transactions in France since the 1990's. Studied from the point of view of economic sociology, it aims to analyse this rise as the construction of a mergers and acquisitions (M&A) market by professionals who are intermediaries in this market, namely bankers and business lawyers, financial consultants, investment funds and merchant bankers. It shows how these market intermediaries have developed the idea that a transaction can create value by using homogenised, normative measurement systems. These systems form a cognitive and normative framework in which corporate transactions professionals think and act, hence contributing towards commodifying companies and calculating a market price for them. The rise in the number of transactions over the past thirty years can therefore be explained less as a result of market forces, than as the product of social forces shaping and driving the market. The article is based on a recent survey in the mergers and acquisitions sector in France, which combined biographical interviews, workplace observations and secondary documentation.

Key words: corporate transactions, mergers and acquisitions (M&A), value, pricing, measurement systems, market professionals, market intermediaries

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The first waves of privatisation of public companies (1986-1988; 1993-1995) launched an unprecedented rise in corporate transactions in France, which echoed a process that had started in the US alongside deregulation and the transformation of financial capitalism (Fligstein, 1990, 2001; 1996 Useem). In addition to the increase in the number and volume of transactions[1], this trend was characterised by the emergence of specialised actors, systems and careers. Indeed, developments occurred within the banking sector, both in that there started to appear Anglo-Saxon investment banks (Goldman Sachs, etc.) and equally investment banks within long-standing banks (Société Générale, Paribas, etc.) were created, strengthened or became independent. American "law firms" started to establish themselves in the legal sector and, as a result, French law firms began to change (Dezalay and Garth, 1998). Auditing firms now offered new services related to transactions, alongside the statutory auditing roles that they traditionally fulfilled. There emerged investment funds specialised in buying (and selling) companies and the amount invested in this sector increased tenfold between 2001 and 2011[2]. In terms of the systems, there emerged, on the one hand, a new financial understanding of the control of companies, as expressed by the notion of "shareholder value" (Fligstein 2001; Lordon 2000). On the other hand, the production process of transactions was industrialised (division of labour between actors, standardisation of methods). Finally, there were new tools for analysing the market (such as financial aggregates, ratio analysis, accounting standards and evaluation methods). This mergers and acquisitions sector, which is known as "M&A" among professionals, grew and

[1] In the mergers and acquisitions (M&A) market in France, the average number of transactions per year fluctuates. However, the number of transactions did increase significantly between 1990 (600) and 2000 (1952), then dropped back down to an average of around 1000 in 2005. By 2005, the volume in value of these transactions was 5.7 times what it was in 1990, reaching 101 billion dollars in 2005. Source: "Le marché du M&A en France depuis 2000" (*The M&A market in France since 2000)*, Patrick Badaro, Henry Capelle, HEC-Vernimmen.net, 2005

[2] The 2001 and 2011 reports compiled by the French private equity investors association (AFIC), which combined the majority of private equity investments, shows the total amount invested was 1000 million euros in 1992 and 3287 in 2001, with a peak in 2007 at 12554 million euros.

provided opportunities for new types of career[3] to graduates from the French *grandes écoles*[4].[3a] It progressively became a prestigious prospect for these graduates, expanding the types of career in banks, audit or law, or enabling access to management positions or roles as Chief Financial Officers in renowned companies.

What is the reason for the increasing power over thirty years of a sector that was still fairly restricted at the start of the 1980's? When asked this question, professionals in the sector indicate the role of markets as playing a major part. On the one hand, there was allegedly increased investment demand (increased liquid assets), which therefore became more profitable. On the other hand, it seems there were companies with potential to grow (in turn causing return on capital to increase) that were as yet untapped, and whose benefits could be maximised through establishing "synergies" with other companies or by providing new avenues to develop financially. In view of reallocating capital in the optimal way, sellers relinquish companies in order to gain liquid assets and invest them more efficiently; meanwhile, buyers take control of companies, hoping to benefit from a greater return on invested capital than for other investments.

This indigenous explanation is in line with the explanation given by financial theorists and especially with that associated with the series of mergers and "takeovers" that occurred in the 1980's in the United States (Fligstein 2001). As such, it seems that at the end of the 1970's, the share price for many American companies was underestimated compared to the asset value. This supposedly caused financial analysts and institutional investors to start buying up these companies, for their share price or thereabouts, and to sell them in parts at the asset value. At the same time, managers acted efficiently by setting about re-structuring the companies for which they were responsible, in order to reduce the difference between

[3] It is difficult to exactly measure the number of people involved in the mergers and acquisitions market in France. Nevertheless, it is possible to derive an approximation based on the transactions listed in the Capital Finance journal of 2010. These transactions amount to 850. They involve 1200 different companies (excluding law firms) and 1500 individuals (excluding business lawyers). These 1500 individuals occupy the highest ranking positions within these companies (partners in charge of transactions and engagement partners), and teams, including trainees (between 2 and about 10 people, depending on the scale of the transactions) must therefore be added to the figure of those who contributed towards the transaction

[4] *Grandes écoles* are prestigious universities in France, many specialising in certain topics, such as business or scientific subjects.

the share price and the asset value. One approach was to sell the company divisions that were under-performing and re-invest elsewhere, or even embark on takeovers and mergers so as to increase the share price.

Therefore the indigenous explanation and the scholarly economic explanation coincide in making financial markets and their performance the be-all and end-all for the increase in corporate transactions. It will subsequently be clearly shown how, from the same standpoint, this rise creates another market, namely in the area of transaction services, causing banks, law firms, auditing firms and investors to review their structure and their strategy in order to use the situation to their advantage.

For all that, other indigenous interpretations emerged during the interviews with professionals, such as “we don’t find the value (of a company), we optimise it!” and “our profession has undergone self-sophistication”. These two ideas reveal the role played by transaction services providers in the creation of the transaction market itself, hence returning to a classic position from the field of economic sociology based on the foundational studies of Granovetter or White. The latter contradicts the accepted economic conjecture by suggesting that the construction of markets should be analysed through the various social mediations in which it is framed (Steiner 2005). Hence, various recent empirical studies highlight the role of conventions (Orléan 2011; Karpik 2007) constructed by market intermediaries (Cochoy and Debuisson 2000; Bessy and Chauvin 2013) and that are meaningful within specific relational structures (Lazega 1999; Godechot 2009), as a way of explaining the nature and price of products traded on a market (Vatin 2009; Chauvin 2011).

As such, this second pair of indigenous and scholarly explanations again examines the issue of the increasing power of corporate transactions over the past thirty years. This leads us to ask: what is the reason for companies becoming liquid assets (Orléan 2005) that can be traded on a market? Why does this activity of trading aim to make investments profitable in place of profits expected on dividends? What approach should be used to examine the increase in the average price used when trading companies, which reached record levels in 2008? Indeed, the objective difference between the purchase price and sales price of a company should not be given as the starting point of the transactions market. On the

contrary, it is this difference that should be examined from a sociological point of view. Yet, it cannot exist without there being different systems to calculate and optimise it. Each of the following systems contributes towards presenting the "value" of companies: financial accounting and its conventions; ratio analysis the profitability of investments, including Shareholder Value; company valuation methods, such as physically itemising them according to the way in which work is organised by different actors within the sector. Transactions and related decisions become possible thanks to a set of information that is standardised and shared, meaning that various companies, as well as other investments, can be compared. As with any other statistical operation, standardised quantifying based on conventional categories enables qualities to be compared, which otherwise would not be possible (Desrosières, 1993).

As a result, within the mergers and acquisitions market, this raises questions related to constructing and using these systems for measuring the value of a company. Based on a recent survey into the mergers and acquisitions sector in France, which combined biographical interviews, workplace observations and secondary documentation (box 1), this article will carry out and present an analysis of the role played by these company valuation systems in constructing this market. It highlights how these systems construct the idea that corporate transactions can create value, and how this idea together with the knowledge required to understand it, contribute towards the construction of a professional group, whose aim is to carry out transactions. In this way, the rise in the number of transactions over the past thirty years can therefore be explained less as a result of market forces, than as the product of social forces shaping and driving the market.

Sociological studies on the measurement systems will firstly be presented in terms of what they contribute towards a set of questions about the mergers and acquisitions sector (I). This sector will then be considered from the point of view of the organisation, company valuation methods and systems that shape it (II). The analysis of these systems will be broken down into three stages, since valuation as quantifying through abstract systems structures the way in which professionals work like an activity resembling an abstract intellectual game (III). Nevertheless, this game is less concerned with showing the objective value of a company, than instilling belief in this very value, through measuring and negotiating (IV). Finally, an examination of the ways in which these systems are endorsed

and disseminated foregrounds a professional space in which "value" and "valuation" are shared norms, which unites the group in a mutual aim of conducting corporate transactions (V).

Box 1: Methodology

The process has involved performing and analysing calculations made of the value of businesses that have been traded. This is based on the mergers and acquisitions sector in France and uses data from a research programme that dealt with *"Carrières de la Finance"* ["Careers in Finance"][5] that was conducted between 2010 and 2013. It contains qualitative surveys (extensive interviews about places of work, together with observation and analysis of documentation) and quantitative studies (building and analysing specific databases). More than 40 biographical interviews were conducted, some of which focussed on presenting and commenting on the methods of financial analysis that were adopted; these were interviews with people who at that time held one of the following positions (see below for the description of positions): "intermediary" (22), "reporting accountant" (12) or "lender" (7). 26 interviews of a similar nature were also conducted with investors (15 Chief Financial Officers and 11 responsible for investments in funds) and about ten interviews with other professionals with whom they work (HR Managers, recruitment consultants, permanent members of staff in professional organisations). Another focus of this article involves analysing workplace observations of reporting accountants, which includes conducting due diligence reports (see below). These reports and the stages in their development were analysed independently (structure, types of indicator calculated, tools used, etc.) and based on the resulting workplace interactions (workplace discussions between colleagues, with members of the management team, with clients, and with intermediaries, lenders and other reporting accountants involved in the transaction). Documents relating to the other stages carried out by intermediaries in order to calculate value ("pitch", "info memo", "management presentations") could also be analysed. These analyses were compared with observations of continuous professional development in valuing companies and other types of event (professional meetings, forums, exhibitions, awards ceremonies), which bring together professionals from the mergers and acquisitions sector in France. These studies also include an analysis of accounting manuals, which contain an explanation of the principles of the value of a company and its valuation.

1. Analysing systems

[5] The CARFI *(Carrières de la finance)* programme was funded by the ANR *(Agence Nationale de la Recherche)* [The French National Research Agency] and directed by Valérie Boussard (2011-2014), with the participation of Marlène Benquet, Marie-Anne Dujarier, Paul Lagneau-Ymonet and Sylvain Thine.

An analysis of the measuring tools and instruments has, since the seminal papers of M. Berry (1983), resulted in numerous studies, each conducted from different theoretical perspectives. These have included the following: approaches that focus on management and draw on sociological ideas (Moisdon, 1997; Hatchuel and Weil, 1992; Girin, 1983; Walter, 2011); the sociology of categorisation (Desrosières, 1993; Chiapello, 2005; Eyraud, 2003); the sociology of collective action (Lascoumes et Le Gallès, 2004; Bezes et Siné, 2011); an anthropology of science (Muniesa, 2005; Knorr-Cetina, 2005) and the sociology of management (Maugeri, 2001; Boussard et Maugeri, 2003; Metzger et Benedetto, 2008). Each of these have therefore led to heuristic analyses of the role played by tools, instruments, techniques and evaluation methods in constructing and animating social relations. Consequently, the term "systems" will be used to refer to such tools, instruments, techniques and methods, hence taking a Foucauldian standpoint to emphasise the connection between diverse constitutive elements but equally their role in social power (Boussard, Maugeri, 2003). Three aspects aptly summarise the ways they affect social relations and are affected by them, the first of which is linked to the framing of social action that these specialised systems establish, the second to their performativity and the third to the circumstances in which they are disseminated and endorsed.

1.1. The framing of social action by systems

Every study carried out on the measurement systems emphasises both their cognitive and political aspects.

In the framework of the economics of conventions, resulting from "formal investments" (Thévenot, 1985), the systems are understood as social forms that allow actions to be co-ordinated, the actions themselves being "collective, cognitive systems" (Orléan, 1989). They constitute a shared framework in which interpretations are made, setting out the scope of possibilities as well as ensuring that knowledge is developed and utilised. This view allowed A. Derosières (1993) to demonstrate that the national statistical system, with its objectives, terminology, graphs and models, creates categories and "beings", the basis for describing the world and acting on it. A relationship is established between the cognitive dimension of conventions and technical components (norms, standards, regulations, contracts, mathematical models, graphical elements, etc.), hence endowing them with a physical form.

The mediating role played by objectives within social interactions (Conein, 1994, Conein, Dodier, Thévenot, 1993), causes the measurement systems to be considered as a sort of "conventional support for action" (Dodier, 1993).

In terms of the anthropology of science and technology, the measurement systems also play a part in constructing and regulating problems and the way in which they are perceived (Garcia, 1986). They contribute towards the task of conveying problems, and of providing incentives to actors, through their ability to give a solid, physical form to the different social relations at play, as shown by F. Muniesa based on the example of the transition from auctions to trading securities electronically on the Paris Stock Exchange (Muniesa, 2005). In so doing, these systems give direction to work, becoming both visible and invisible, much like the screens providing instant information globally in trading rooms (Knorr-Cettina, 2005), or mathematical formulae and models that are used in financial arbitrage (Mac Kenzie, Millo, 2003 ; Godechot, 2001).

These studies are in line with the seminal ideas of Michel Berry (1983), which make management tools (especially outcome indicators and performance indicators) "invisible technology" in that they provide (true and accurate) summaries, which in turn structures the way in which actors behave. He illustrates the example of bankers, whose profession is under the influence of a few simple ratios, tools and pieces of terminology that are used by their superiors, even though they feel that they avoid any technical determinism.

However, according to M. Berry, this invisible technology is all the more powerful as the measurement systems act to "crystallize the power relations". In the vocabulary of the anthropology of science, these are "cooled" controversies (Callon, Latour, 1990), which takes an even stronger Foucauldian standpoint to analyse them as political systems. The philosophy of management that they incorporate is thus a view of the world embedded in the power relations that the systems introduce "illegally" (Maugeri, 2001). Similarly, the instruments used to measure public action can be analysed as a "convenient smoke screen" so as to depoliticise topics that are fundamentally political, by focussing on their apparent neutrality (Lascoumes and Le Galès, 2004).

The cognitive framing performed by these instruments should therefore be analysed as constructed, with roots in specific social relations, which it contributes towards (re-)producing, while also making it invisible.

1.2. The performativity of systems

Following on from the ideas of M. Callon (1998), the systems have also been analysed in terms of their ability to empirically create the phenomena that they measure. This ability is referred to as performativity (Callon, Muniesa, 2010), drawing on the pragmatics of language (Austin, 1955). McKenzie and Millo (2003) showed how through the traders of the Chicago Board Options Exchange applying the theoretical equation of Black-Scholes-Merton, this caused the prices of derivatives to become aligned with the theoretical model, a process that actually was not possible before models were systematized and computerised. This performative effect of economic or financial theory deals more with "the issue of arranging elements" than with the effects of utterances and thoughts per se (Callon, Muniesa, 2010). It is precisely due to the fact that there is a routine for performing calculations, made possible by software and prescriptive models, that the theory becomes reality (MacKenzie, 2004, Montagne, 2006, Walter, 2011).

Another way of analysing this performativity is based more on the idea of self-fulfilling prophecies, as adopted by R.K. Merton. This idea considers how belief in the effects of a theory or model produces the effects consistent with this belief. Therefore, it is due to a group of actors believing in neoclassical economics that they act according to it and transform the market (Lebaron, 2000, Fourcade, 2009). From this perspective, the measurement systems are also statements of a "Logos of management" (Boussard, 2008). This statement, which is repeated and reinforced every time the systems are put into practice, has performative effects. It spreads the belief in a specific definition of performance and makes this a social norm (Meyer, 1994). As a result, those organisations that set up legitimate tools for measuring performance, such as audits (Power, 1997), earn a positive reputation. This effect is therefore based on the processes of imitation between organisations and professionals (DiMaggio and Powell, 1983), whereby organisations and actors conform to legitimate norms within their field. Moreover, performance measurements, which lead to ranking systems, play a part in reinforcing the status of those who are ranked most highly, while also modifying their conduct in order to manipulate the indicators that measure the position (Espeland and Sauder, 2007). This performative effect of performing measurements results in a disparity between the measurements, which are taken as fact, and the phenomenon that they are supposedly presenting, yet which are

often a lot more complex, multifaceted and contradictory, as shown by the disparity between the ratings assigned to subprime mortgages prior to the financial crisis in 2008, and the situation in its inverted form in more recent years.

1.3. Disseminating and endorsing systems

Before they became "cooled" controversies, the systems resulted in very animated controversies, which drew attention from various actors or groups of actors. Through analysing the systems, this reveals the circumstances in which they were created and disseminated, by uncovering the process by which certain actors managed to convey their own issues, by way of the systems, and how through groups joining forces and making compromises, the physical form of the systems was defined, which turns out to have little relation to the theoretical form (Segrestin, 2004; Muniesa, 2005). The Europe-wide analysis conducted by E. Chiapello and K. Medjad (2007) examines the process of enactment of accounting standards by the IASB, an actor in private law. The study unequivocally shows on the one hand the political and economic motives for the choice of specialised rules in accounting, and on other hand the social relations, especially the influence and lobbying, which exist unseen.

Another way of analysing these systems being disseminated is to examine the various actors involved in this process, in the position of "market professionals" (Cochoy, Dubuisson, 2000). Indeed, these systems could not be spread among users, who after all do not know a lot about their quality and performance, without being endorsed, and especially "endorsed through judgement" (Hatchuel, 1995). These endorsements play a part in establishing the value of objects (Karpick, 2007 Bessy and Chauvin, 2013) and they are carried out as technical advice, provided by experts, and equally as ranking systems, guidelines, rating, and so on. Market professionals who handle the measurement systems – teachers, tutors, consultants, software editors and so on – play an essential part here; they give value to certain systems rather than others, hence helping to establish and legitimise conventions. F. Lordon thoroughly demonstrated this process based on a new measure of capital value, EVA, starting with its creation in the 1970's, and then to the 1990's during which it was promoted and its use became widespread.

This reading can be supplemented by a perspective that draws on ideas from the sociology of professions (Freidson, 1986; Abbott, 1988). The measurement systems are considered as sources of knowledge, which occupational groups use as the foundation for building and defending the boundaries of their territory of professional interest (Boussard, 2008). Analysing the systems in this way comes down to understanding, with regards to the social relations involved in disseminating these processes, what causes professional knowledge to become institutionalised and legitimised, and likewise for the disagreements within and between professionals that are thus resolved.

2. Valuing companies within the mergers and acquisitions market

The three sociological aspects of the measurement systems – framing, performativity and dissemination/endorsement – make it possible for the mergers and acquisitions market to be examined, in that this market is based on a core activity that is structured and shared among various actors. This activity involves calculating the value that transactions will create and hence the value of the companies that are being traded.

Buyers and sellers of companies, and investors fall into three categories, the first of which is made up of business owners (often of SMEs), the second being financial executives or Chief Financial Officers of large corporations who act on behalf of shareholders, and the third being directors of specialised investment funds, known as Private Equity funds. Although members of the first category participate on few occasions, often even only once, the two others perform several transactions and are buyers or sellers, depending on the circumstances.

2.1. Agreeing on a measure of value

In terms of value creation for the shareholder or "Shareholder Value", which became popular and widespread from the middle of the 1980's[6], investors are responsible for calculating, for the purposes of comparing, what will be the return on their invested capital. While EVA is becoming one of the measurements tools aimed at investors in shares (Lordon,

[6] Rappaport, A., 1986, *Creating Shareholder Value, The new standard for business performance*. New York: Free Press

2000), other methods are employed when it comes to investing in a whole company[7]. The purpose is to evaluate a company, based on an analysis of the past and present situation, as well as forecasts for the future. This analysis makes it possible to work out the potential value resulting from this transaction, together with the buying or selling price of a company that will generate this value. Buyers and sellers can therefore gauge the return on their capital investment or divestment, based on a comparison with other options for capital investments. In order to calculate this value, three methods, each with different conjectures and results, are used at the same time, namely the patrimonial method, the multiples approach and discounted cash flow analysis. In order to implement these methods, it is necessary to initially analyse the balance sheet as well as the profit and loss account of the company in question; this provides accounting data that is deemed to be reliable, which will be used in the formulae for calculating value. Another process is also applied, that of drawing up a business plan, or in other words modelling the future financial performance based on a range of conjectures on how companies operate (fluctuation in turnover, production costs, financing costs, etc.). The aim is to forecast the future performance of the company and use this result to calculate the current value (and hence the resale price). In addition, the value "created" by the transaction can be measured using groupings that involve the other companies owned by the buyer or companies that result from restructuring ("synergies") or both of these groups.

[7] Hunt P., 2004, *Structuring Mergers and acquisitions: a guide to creating Shareholder Value*, Aspen; Mac Kinsey & Company, 2005, Koller T., Goedhart M., Wessels D., *Measuring and managing the value of companies*, 4th edition ("authors are current or former consultants at Mac Kinsey and Company's corporate finance practice")

The three methods for measuring the value of a company:

1) The patrimonial method is the eldest of the three. It involves gauging the value of a company based on the value of its assets (modulo the debt). As such, this method is based on the balance sheet and produces a summary of historical value.
2) The multiples approach or the method of comparables calculates the value based on the market value (price) recorded for similar transactions. This price is modelled as a multiple of the EBITDA of a company. The EBITDA is an accounting measure, taken from the English accounting term ("Earning Before Interests, Taxes, Depreciations and Amortizations"), which measures profit before deducting tax expenses and financing costs. Calculating the EBITDA is the cornerstone of the multiples approach (for example, in a certain sector, companies sell for "6 times their EBITDA"). In this case, the focus is no longer on the balance sheet, but rather the profit and loss account, which features the EBITDA that has been achieved. The value is based on historical data, but is no longer simply intrinsic to the company, but is relative to the state of the market (the multiples recorded).
3) DCF (Discounted cash flow) analysis is the most recently adopted of the methods and also the most affected by the financial markets. It involves using the future cash flow of the company for current purposes, based on the cost of capital. In this case, the value is neither historical nor intrinsic, but is created by making future projections and examining the elements of the financial structure of the company (especially debt) and the financial market that influences the capital cost used in the calculation.

2.2. Measuring value and the intermediary role of analysts

In order to measure value, investors mostly sub-contract processes to intermediaries, each of whom plays a particular role. On the one hand, intermediate analysts who are referred to as "matchmakers" (investment banks and sometimes business lawyers) act on behalf of the investor by suggesting a transaction, arranging this transaction, assessing the value of this transaction and providing advice during the final stages of the price being negotiated.

They are also supported by other intermediate analysts, known as "*reporting accountants*", who produce reports on the company and testify the validity of the financial data used to value the company, or to economic conjectures (auditing firms, finance consulting firms, strategic consulting firms). These "reporting accountants" produce reports, known as "*due diligence*"[8] reports. Finally, in order to finance transactions, buyers go to bankers, the "*lenders*", who receive the various documents for analysing and valuing that is being handled in the transaction. Bankers conduct their own financial analysis in order to decide on the amount of loan to be given and its rate. This analysis focuses more on calculating risk than calculating value. Nevertheless, the process of financing contributes towards the price being fixed, in that it affects the return on capital and hence the value created.

Matchmakers, reporting accountants (and to a lesser extent, lenders) are therefore analysts, intermediaries in this M&A market, whose role, as has been seen, involves presenting, on behalf of their client, the "objective value" of the company, to adopt the expression used by one of the people surveyed[9].

2.3. A divided work process

The process of calculating this "objective value" is performed several times, by different actors, from the buyers' side, from the sellers' side and from both sides, by investors' analysts and by all intermediate analysts that they consult. As such, there are several "values" that are calculated, each of which is claimed to be objective. The price or "market value" that the buyer ends up paying, results from the "values" being compared and debated. Most of this process is organised and occurs in different stages, entrusted to others and involving them meeting. This process would be too long to describe here, but it can be broken down into three parts. On the one hand, on the seller's side, when investors want to sell a company, they often have an idea of the "(shareholder) value" that they would like to create, hence the "value" of the company, and the price they would like to obtain for it. Intermediaries who advise the investor, will themselves analyse the situation

[8] In French, the English term "due diligence" tends to be adopted. The meaning of the term is that these reports authenticate the resulting data.

[9] Purchasers also use lawyers, who draw up contracts for the transaction and intervene in the negotiations when necessary. This group will not be studied in this article.

and produce their own “value” for the company, which may or may not agree with the investor's calculated value. If it is decided that the sale will go ahead, reporting accountants are responsible for conducting a more thorough financial analysis (due diligence reports), which will itself form the basis of other calculations. Through collecting and auditing information, conducting interviews with the company’s management team, holding meetings between the main interested parties, making telephone calls, and so on, the “value” of the company for the seller can therefore be constructed and justified. Between the buyers and seller, on the other hand, the reporting accountants of each potential buyer meet the seller’s reporting accountants, in official sessions known as “Question and Answer” sessions, during which they can examine and interrogate the figures, and therefore the value of the company, suggested by the seller. This enables the buyers’ reporting accountants to produce their own due diligence report, and to construct their own value. Finally, when decisions are made, the seller’s intermediaries arrange meetings, which are known as negotiations, in which buyers and intermediaries meet the seller, in order to suggest prices, utilising the reports that have already been drawn up about the value of the company. These meetings are often followed up by telephone calls and other more informal sessions. It is therefore extremely difficult to observe them, especially as they are confidential and involve very few people. While these negotiations form the culminating stage during which the price is fixed, they remain completely dependent on the supporting stages without which they could not exist[10] and which will be the focus of this analysis.

3. Quantifying: an abstract, intellectual game

As has already been highlighted, the ability to value a company relies on financial reports being produced about the company. These reports act to quantify the company, based on accounting statements on the one hand, and conjectures of how companies operate on the other hand. These conjectures are shared across all actors, and form the common ground of their work.

3.1. A structured process

[10] Just as in a game of chess, the final turn is only possible given all of the previous turns.

The process of quantifying is arranged by dividing work vertically and horizontally with the youngest and least experienced analysts assigned to the most menial and repetitive tasks of collecting and auditing data, recorded in tables then compiled into the report. Yet both the structure and content of this report have already been determined and are standardised by the management team, hence making them “collective cognitive system” (Orléan, 1989). Young analysts must fill in clearly defined tables, based on very specific accounting data or financial data. While the general structure of the reports varies from one group of intermediaries to another, there is no difference in the data itself that is produced nor the methods used to audit this data. The data is based on accounting categories (all of which were found to be American in our examination), as well as on national or international rules or both in relation to handling and processing accounting data. The resulting information fills several hundreds of pages, yet fall into three macro-categories, which are the focus of each review, namely EBITDA, cash flow and debt.

Another aim of the resulting business plans is to ultimately “model” these three significant indicators, by testing different conjectures and evaluating their effect on the indicators. When financiers quantify the company, they do so by drawing mathematical relations between the company's economic data (products, markets, competition, production, etc.) and the three key indicators that should emerge from their analysis. In this way, the significant indicators (Boussard, 2001) and mathematical modelling act as invisible technology (Berry, 1983) giving direction to analysts' work.

3.2. Distancing and omitting

In order to compile these reports, analysts base their work on data that itself has already been processed and was either produced by the company in question or is provided in databases. This involves laboratory work, conducted in a so-called “data room”[10], away from the company itself. In this way, the analysts handling the transaction are all gathered in the same room containing all the data to be analysed while the project is under way.

The accounting and financial categories that they audit, produce or both audit and produce are expressed as acronyms and, what is more, they are in English [for French speakers]. These acronyms, together with other Anglicisms, make up a major part of the exchanges between financiers, in relation to working on reports. Hence the way in which such terms are formulated, means that the physical economic material referred to by these categories

becomes abstract and intangible. For example, EBITDA, which is central to the reports, is one of the concepts that expresses profit, which in turn is an economic category and even a moral category. Similarly, discussing COGS[11] (for costs), FTE[12] (for full-time equivalent) or OPEX[13] (for operating expenses) avoids discussing the costs of staff, jobs, down-sizing, reorganisation and so on. Financial categories are abstract, hence forming a distance between them and the more physical and controversial terms and categories to refer to how companies operate economically. One reporting accountant made the following comment concerning a table for a due diligence report, which shows the increase in profit after a number of staff had been laid off: *"Afterwards, we'll deal with operating costs. The cost of management is a given.* ***How much would it be if we wanted to make cuts?*** *This is essentially how a cost is broken down.* ***Breaking down a cost allows synergies to be formed.****"*

Through these analytical categories, the way in which companies operate economically and the physical effects become invisible. This happens in favour of another effect, presented in another category, namely that of value. Indeed, the three significant indicators equally allow for the "value" of the company to be calculated (see box 2). The various economic processes, modelled using mathematical and financial relations, are therefore considered in terms of their ability to "create value".

3.3. Pleasures in measures

Although these laborious, repetitive, painstaking and intensive tasks deter some young novices, those who do continue work in this field express a genuine interest for it, expressed in the form of pleasure in or enthusiasm for working with figures. This joy could be compared to the joy of hunting (for treasure), or of puzzles, as games that require a piece of information or a solution to be found hidden among a series of obstacles. Analysts hence speak of their work as a "Sudoku" or a "Rubik's cube". In reporting accountant's offices, work is therefore carried out in almost complete silence. The only sounds to be heard are the tapping of fingers on keyboards and the rustling of paperwork. Yet there are often

[11] COGS = Cost of Goods Sold

[12] Full Time Employment
[13] Operating Expenditure

exclamations of “Yes, I've got it!” and “It's a wrap” that break this silence and indicate that the search for a particular figure has been successful.

The pleasure derived from this type of work is also related to building mathematical models and configuring them so as to find the right solution, that is, different values that satisfy the equation. The equation in question refers back to assessing the company. Solving this equation is a mathematical process, which acts as a euphemism for the decisions involved in this process. For example, returning to the previous quote, it involves “stating how much it would be if we wanted to make cuts” in order to “state how much would be earned if a section were cut”. This task is considered to be one of the most appealing and enjoyable parts of this job:

“This type of work is all-encompassing. The thing I loved was that at the beginning there is nothing. The table is empty and you envisage a transaction in your mind, such as considering companies X and Y, you tell yourself that you must bring them together. Out of five ideas, one of them will create value, jobs... it's like magic” (an intermediary).

The systems adopted to quantify a company, which are set up in such a way as to present the select few variables that affect “value”, play a part in defining the work of analysts and the related norms. However, beyond this, through the significant accounting categories and the abstract, mathematical, intellectual game that connect them, these systems also produce cognitive, moral and, ultimately, professional categories upon which their work and companies are based. By way of the systems of financial analysis, companies are seen as mathematical “models” of “value”. This cognitive framing conceals a whole range of social relations involved in this sort of transaction.

4. Calculating “value” to legitimise “value”

Nevertheless, although these models supposedly calculate an objective “value”, they are actually only intermediate stages in establishing arguments for stating “the” value and hence causing it to become accepted as objective and therefore legitimate. As was highlighted by an investment banker, his work does not involve revealing an inherent “value”, but rather *“we don’t find the value, we optimise it!”* Similarly, during the process of valuation, analysts are given instructions by the client (investor) for whom they are working,

and these instructions define the price that must be established by their calculations, as shown in this extract from an interview with a young reporting accountant:

"Normally we're supposed to be completely neutral, so we're not supposed to provide clients with a certain figure just to keep them happy. (…) When clients... if we want to retain them, we try to align ourselves with them (…). The client may say "maybe we could find something [to shift the value]". This has never happened to me yet, this feeling of influence from the client. But I have already had the feeling of "well, that seems a little high, or a little low". By utilising very subtle conjectures, we are able to significantly alter the outcome. Even if the process of deriving a valuation is based on a scientific method, there is still a lot of room for interpretation. And depending on which conjecture is chosen, the results can be very different... naturally. Since we never know what might happen in the future. So depending on whether we use optimistic or pessimistic assumptions, this can change everything. Especially when we're dealing with a start-up company. You can imagine that in 5 years' time, it could be Facebook, or it could no longer exist".

The work of these teams therefore involves *"positioning the cursor where it is needed* (the price requested by the client) *and rationalising accordingly".* Generally speaking, the seller's intermediaries will work to *"make the bride seem beautiful"* (to use an expression that featured in many of the interviews), by choosing the figures that are in line with expectations. Meanwhile, the buyer's intermediaries will try to downplay the processes that inflate the "value", and will rather compile and choose figures that decrease the "value".

"(With regards to due diligence at the time of sale), there is less independence since auditors are then working for the seller. Auditing firms have to be dragged out kicking and screaming in order to alleviate potential problem areas. But when it comes to the buyer's due diligence, the reports are also reviewed by the funds committee. For example, "highly pessimistic" becomes "slightly pessimistic". It's about the wording. It's the bride's dress. Marketing is involved here, it plays an important role. The investment bank must depict the most attractive (goal). But buyers aren't easily duped. They will carry out their own analysis. In any case, it's all a game and everyone knows it." (a lender)

The process of constructing the "value" therefore has three stages, namely when intermediaries canvass for clients, when there are compiled financial analysis reports and valuation models, and finally when reputation reports are compared. In each case, it can be seen that "value" is created by the systems in a series of three-fold performativity in which performativity of theory, belief and ranking system are logically connected.

4.1. Intermediaries as traders of "value"

While investors may have their own ideas about the transactions that are to be conducted, they are strongly influenced by intermediaries who suggest ideas to them. Intermediaries, whose remuneration depends on the transactions they have conducted, envisage possible transactions and suggest them to their client or future client. This involves them performing calculations based on the figures they have available to them, through databases. These calculations provide a measurement of the "value" that will be created were the transaction to go ahead, along with the price of this transaction. The systems used ("the pitch" in which the resulting values are presented and there is a discussion on "value creation") act as a way of conveying information to stimulate the interest of their clients. This process, which is mainly for commercial purposes, is related to endorsement (Hatchuel, 1995). On the one hand, intermediaries use this process to disseminate their recommendations in relation to the systems of measuring value. Intermediaries were also the ones responsible for introducing the Discounted Cash Flow method and then making it an essential part of the calculation. But on the other hand, they also have the role of endorsing judgement (Karpik, 2007) as soon as they attach a "value" to companies and to the potential transactions. They build a judgement on those companies or processes that have "value", and those that do not, hence categorising and forming ranking systems for the clients to whom they have canvassed. This was the view expressed by the following investment banker, who is a partner at a prestigious bank and whose team is well known:

"Anyone can come up with ideas (…) it's important to read the news, I meet people, I go to trade fairs. Ideas are everywhere, it's up to you to catch hold of them. For example, when I was on holiday (…), I came up with an idea about company A (that I could join with company B...). When I came back from my holiday, I went to see X, the director of company B, he went along with my idea and I sold it to a Private Equity fund. (…) But also, I had already heard X say "Is there not any other business I could do", and I came up with the idea and then did my

research. This is where I was lucky. In company A, there was C (another large company), and I didn't understand why it was there, since it wasn't part of their core business. So I went to see them. I told them "I have an idea and a buyer, what do you think?" And they said yes, but you don't sell at any old price. This is where my soap selling skills came in. I realised that I had a feasible idea. As for the strategy, they must develop that. I went to see X, and he gave me the purchase mandate."

Intermediaries therefore play a part in spreading the idea of "value creation", using various systems that reveal this value, which hence causes investors to take interest in the proposed transactions and to perform them, within the frameworks that are provided in relation to methodology and measurement. In this way, the "value" of the transaction and the ability to perform this transaction come into existence, due to the very tools that measure it (Callon, Muniesa, 2010).

4.2. A contingent value, depending on the analysis

However, the final "value" of the transaction, which results from the price of the company, is not set at this stage. At this point, the various due diligence reports are drawn up and analysts "configure the models". Each team of analysts produces its own accounting figures, which will form the basis for calculating the three significant indicators previously mentioned, as key variables in the valuation. This process involves auditing the balance sheets, and the profit and loss account, as well as checking that the proposals outlined in the business plan are sound. In this way, these experts in accounting are able to avoid representing the truth of these accounts or of the company's situation (Gill, 2009).

"Nothing should be taken at face value. The information must be recompiled. Always dig everywhere in all directions and obtain the most fair results" (a reporting accountant)

During this stage there are fierce battles between experts, which are fought by analysts to produce the figures that will form the basis of the valuation. The figures that are shown in the various reports are actually less down to objectivity (which cannot be achieved), than the result of the battles and compromises made between analysts in relation to the various

options on the figures and variables that are used. Indeed, these figures and variables form the foundation for modelling the "value" of the company, in a circular process in which the expected "value" may influence the data that is then used to calculate this very value. In fact, analysts resort to numerous conjectures, themselves derived from a choice. For example, in order to use the multiples approach, the sector multiple must be calculated based on a sample of past transactions. Depending on the boundary adopted for the sector, the time period and the transactions that are included or excluded, the multiple can vary. The situation is even more extreme with DCF analysis, which requires future projections to be made in relation to growth, a process that analysts maintain is "performed haphazardly". It may involve economic forecasts (turnover, etc.), as with finding the valuation multiple when the sale is implemented. What is more, calculating the capital cost also depends on a number of other variables, which themselves are a result of choice. In order to pinpoint the "value", analysts therefore make "sensitivity" assumptions based on probabilities assigned to predicted events. Yet, in the end, as was stated by an intermediary *"We sell companies based on factors that are beyond our control. For example, we forecast what will happen 10 years down the line, which is not actually possible to do. We sell certainty on false forecasts. We are very far from the truth."*

As a result, for analysts, the whole point of the exercise is not to find the "truth", but to convince themselves, their teams, and other interested parties that their model is "the" true model.

"We carry out modelling using variations in parameters. This materialises in line with the sensitivity assumptions, and the effect this has on credit. ***We believe in it or we don't believe in it****". (an intermediary).*

Therefore, there is initially a whole process of compromise and negotiations in teams and in discussions with the client (buyer or seller), so as to set the potential value of the transaction and hence estimate the price for which the company should be bought or sold. Once each party has convinced itself of the "value", it then tries to make the opposing party "believe" in it. It does so by rationalising it through using authenticated figures and making expert use of the methods. This corresponds with the following explanation given by a tutor to justify the valuation of a company to Chief Financial Officers, whose companies were going to be involved in takeovers with investment funds:

“Here are some basic, common-sense ideas: once you have completed the evaluation and you obtain a figure (...), you must be able to establish and uphold the conclusion drawn, as well as justify the final evaluation (...) An evaluation (…) is sensitive to modifications in various parameters. And to sensitivity analysis too...so it's like I told you: feel free to imagine scenarios. Scenarios that may be meaningful to the people to whom you are presenting the operation. As such, you must think about who you are addressing, in what state of mind they want to be when the information reaches them, and what interests them”.

This same view is expressed in the following exchange between a seller (represented by the Chief Financial Officer) and his reporting accountant who is responsible for drawing up the due diligence report. In this case, it involves presenting a report which will convince the banks that are supporting it, with the amount and rate of this report determining the final “value” of the transaction (since the financial leverage effect automatically increases the ultimate capital gain).

Chief Financial Officer: “The shareholder wishes the modified EBITDA to be added under the table and that the change in value is added in order to avoid making calculations ourselves. He feels uneasy, since if we say that we are being careful in the current context, they (the banks) will think there's a problem. The shareholder simply wants us to provide no reason; this way, bankers aren't given leads that may cause them to worry”.

The reporting accountant takes note of this and says “OK”.

Nevertheless, these various rationalisations will themselves come into conflict during the “Question and Answer” sessions in which the buyer's reporting accountants question the seller's reporting accountants about the report that they have compiled. During these heated debates, which occur publicly (in the presence of buyers, sellers, intermediaries and lenders), reporting accountant's analysts risk their professional reputation. Regarding what is at stake in these “Question and Answer” sessions, one reporting accountant gave the following explanation: *“the risk is to ask too many questions and stupid questions. One question is OK and so is two, but three is not. A question is stupid when you ask the question and, (sitting opposite), they think 'this person doesn't know a thing about business'.”* Another reporting accountant added *“In Q&A, it's a question of eloquence. You may have made a mistake, but you must not show it.”* At the end of “Question and Answer” sessions, the teams, facing their client (buyer or seller accordingly), comment on the remarks made

by the opposing teams, as in the following example in which the head of the seller's team of reporting accountants is referring to his counterpart on the buyer's side, saying *"Given his status (the reporting accountant is a partner in a leading firm), I did not understand why he did not ask questions of a more qualitative nature from the start".*

The questions asked on the one side as with the answers provided on the other either lend credibility to the proposed figures, or undermine their credibility. These questions and answers also gradually establish an acceptable version of these figures. They set up the final stages of negotiation, by attempting to weaken the arguments and figures of the opposing party. As such, the teams regularly make comments about the documents compiled by the opposing teams in the transaction, with these comments relying on their own judgement of the "value", which they form by evaluating the strength of the arguments on all sides. For example, before a business meeting with reporting accountants of the TAS consulting firm that he selected, one of the investors in Private Equity funds commented on the due diligence report drawn up by the seller's reporting accountants, the GC firm: *"I do not understand anything about the report compiled by CG. I do not know what this company is. It's very financial".* The reporting accountant, head of the TAS team, added *"It's very much a 'helicopter view'. All the same, some of it is phrased in a surprising way (he reads and laughs). I agree with your comments: what is this business?"* The two other reporting accountants from TAS and the second investor in Private Equity funds also gave their own criticisms of the document: "not easy to read", "tiring", "it took me a while to actually find the figures". This discussion is based on the view that investor, who in this case is the buyer, establish their own value, on the one hand, and their ability to defend this value during the negotiation, on the other hand.

4.3. Reputation reports as central to defining the "market value"

Nevertheless, there could not be a "value" constructed by the systems without it being reinforced by a certain belief, not so much in the systems themselves but rather in the knowledge and professional legitimacy of those who use these systems (DiMaggio and Powell, 1983). Indeed, given that each method may produce various "values" and the three methods may produce different results, the systems alone do not express the "value". These

systems are handled by different analysts and the message conveyed by the systems is only worth as much as the "value" of the message conveyed. In order to understand this, it is necessary to look back at the stage when the price is negotiated, which is when the buyer's bids and the seller's expectations come into conflict.

In addition to expressing the transaction in figures and values using the systems, buyers rely on the reputation of their chosen intermediaries to draw interest from their managers and financial backers, and to influence the opposing party. For an investor, who is leading a proposed transaction, paying for the services of a "big name in the financial sector" increases their chances of persuading others.

"Investment banks are used when it is a major transaction that requires a guarantee; you pay for the name" (Chief Financial Officer who is responsible for mergers and acquisition in a branch of CAC 40[14])

Indeed, different intermediaries are not equal in terms of their reputation and thus their ability to state "the value". Intermediaries, for example, are classed according to ranking systems, which rate investment banks. This rating is formalised in being published by various establishments that produce ranking systems, known as "league tables". Alternatively, prizes and trophies are awarded to acknowledge the "best" investment banks for each category of transaction.

"Investment banks are proud of these ranking systems, and so refer you to them. That's the system of league tables. There are sub-categories; if a bank appears in both ranking systems, this is not down to chance. They really must be good (…). There are the "fat cats" who are ranked in first place for all the categories, and they think they can just call their boss [to suggest a transaction], and sometimes this works." (A Chief Financial Officer who is responsible for the mergers and acquisitions of a branch of CAC 40).

Yet these reputations are also informal and personal, and they are disseminated in the "small world" (indigenous expression). Generally speaking, reputation depends on the

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14 b "CAC" stands for "Cotation Assistée en Continu" meaning "Continuous Assisted Quotation". It is a benchmark French stock market index.

number of completed transactions, “deals”, in addition to how much these transactions were worth, as is suggested in the following assessment of various intermediaries made by

an investor in Private Equity funds:

“There is PwC (PricewaterhouseCoopers), which will be head and shoulders above the rest. And those having formerly collaborated with Ernst and Young, who have now celebrated their 150th anniversary, and who were financed by a head of a LBO. It is ranked 8 for its advisory role. As for tax consultants and lawyers, who are individuals, there are some very good ones. There is a list of recognised names. And they must be able to execute tasks. As for investment bankers, (…), at Rothschild, there was one person in particular who had a phenomenal market share” (an investor in Private Equity funds)

However someone’s reputation also relates to how reliable they are and whether they are able to prove their expertise, as is expressed by the term “credibility”, which is widely used in the interviews. The forming of these judgements can be seen in the framework of everyday interactions. For example, while observing a conference call about a transaction, it was noted that the team of reporting accountants gathered around the telephone had the chance to discuss intermediaries who they had encountered in previous transactions: *“Oh! That’s Leonardo’s famous team!”* or *“There are two people from Barclays, they weren’t bad.”*

Reputation is also maintained and propagated by the press and professional networks. As such, some bankers are real “stars” of their field and become very on-trend, as shown in an article from *La Tribune*[15] in 2010, entitled “the rising stars of investment banking”, which listed the names of “the young forty-somethings who have spent their entire career in major banks, such as Morgan Stanley, J.P. Morgan, Lazard or Rothschild” and who are “ready to inherit the title”.

[15] French website that publishes articles on economics and finance

These reputations, and especially the way they are differentiated and ranked, plays a role during the final stages of negotiating the price. Indeed “the value” presented by a “big name” based on due diligence reports compiled by a firm involved in the “best deals” in that area, conducted by people whose “credibility” is widely accepted, is more likely to be adopted during the final stages of negotiation. Therefore, bankers who are known for having successfully negotiated a deal for their client “thanks to their talent”, are sought-after figures to play an influential role when the price is settled.

“We're willing to pay for a very expensive lawyer, or an investment banker. But it's the man that counts. Here's an example: Picard was sold in the summer of 2010, from one Private Equity firm to another. By Friday, three bids were on the table, one of which was 10% higher than the others. For the seller, this is good. He knows who he will choose. The banker has the sale mandate. He plays a significant role. His name is Laurent Baril. Everyone knows him. He is managing director at Rothschild. Over the course of a weekend, he was able to convince the bidder who had offered 10% above the others to increase his price even higher. And over the weekend, the price increased by 150 million Euros. 150 million Euros are thrown onto the deal just like that. Bang! When you're the seller, and you know you have someone who can dramatically alter the price, you're willing to pay a lot of money” (an investor in Private Equity funds).

The stories that are disseminated about negotiations expose power relations, acts of intimidation, wars of attrition and nerves, which result in confirmed reputations being established for future negotiations: *“You cannot simultaneously be competitive and good-natured. You should earn others' respect during the sale, rather than be duped by them”* (an investor in Private Equity funds).

However, what is particularly noticeable is that for all transactions, buyers and sellers employ the services of groups of intermediaries who are part of the same circle (demarcated by the ranking systems and the ratings of the sector). If the opposite were true, it is more than likely that the outcome of negotiations would favour the most prestigious company. This stage of negotiation has a performative side to it, when ranking systems are applied (Espeland and Sauder, 2007). The companies or analysts with the best rating are therefore entrusted with the major transactions and are believed by those in their field as providing the “correct” value. As such, they are very likely to remain highly rated and

to be leading players with regards to “value”, to paraphrase the name of these ranking systems.

5. Using the valuation systems as a professional art

Analysts, who are intermediaries in the processes of mergers and acquisitions, are essentially market intermediaries, as defined in economic sociology. They contribute towards creating the market by developing products that comprise the transactions themselves, the “value” that this supposedly generates, but also, for the price of the traded products, endowing companies with a performative aspect. The systems, through the theories about value that they incorporate, the calculations that they perform, and the reputations of the analysts who handle them, are central to this performative effect. Understanding the importance of this effect also requires an analysis of the ways in which these systems are disseminated and the professional space that is consequently demarcated.

5.1. Multilaterally and homogeneously endorsing valuation systems

Intermediaries, in their commercial capacity, endorse to their clients the use of particular systems for measuring “value”. Nevertheless, this process of endorsing also takes place on other levels, each of which reinforces the others. For example, firms of intermediaries and reporting accountants hire as analysts, those graduates of *grandes écoles* specialised in business or engineering (or the international equivalent), whose studies have included topics focussed on finance that are taught at these *écoles* and particularly in corporate finance. This teaching is based on American and French publications, written by teacher-researchers, consultants or both, which act as manuals and reference material[16]. They are based on different methods of financial analysis (through learning about financial and accounting categories, and interpreting ratios), and the valuation methods. The underlying theory is that of “value creation for the shareholder”. Teaching is mainly conducted through the case method, in other words learning through exercises taken from real-life situations experienced by companies. This deals with analytical systems and measurement systems

[16] Vernimmen, Principles of Corporate Finance (9th edition), Brealey Myers Allen, 2008

taught in manuals, as indicated by a tutor during a training session that dealt with the valuation of a company:

"The tutor: In books, we cover methods in some detail, while ensuring the calculations are fully grasped. Once the parts on the influence of accounting and value creation have been covered, it (the books) won't be of any more use, in theoretical terms that is. So this is the chance to apply the theory to practice and to discuss it, which is more important in my view... (Then, in relation to the exercise that they are doing) Have you managed to calculate the weighted average costs of capital (WACC) or are you still working on the costs of equity?"

This same training can be found in all continuous professional development programmes on offer, whether they be for financial intermediaries or their clients. For example, American investment banks provide new employees with training that lasts several weeks, covering financial analysis and valuation; this training is subcontracted to specialised groups that provide their services to several banks. An investment banker who had gone through this training neatly put it: "this is when we get to grips with the *tool kit*", the fixed foundation that is essential to doing this job.

Yet this foundation is also presented (admittedly in a less intensive timetable) to company directors or Chief Financial Officers, as training provided by professional organisations, management schools or private establishments (Cegos, …).

What is more, mergers and acquisitions intermediaries make the choice of analysts during the recruitment process by giving candidates the task of handling scenarios involving financial analysis and valuation. Both their ability to manipulate the "*tool kit*" and their financial reasoning behind "value creation" play a decisive role in this recruitment process.

Ultimately, through various actors (universities, *écoles,* continuous professional development programmes, consultants, M&A intermediaries), these systems are multilaterally endorsed, in areas ranging from the vast sector of management to the much narrower sector of finance, resulting in the systems for measuring the legitimate "value" (at a given time) being homogenised.

5.2. The "deal" as a professional work of art

Multilaterally and uniformly endorsing the systems in this way, causes them to be disseminated in numerous directions. It also plays a part in creating a world that is structured around these systems and what they stand for as shared conventions, in terms of the way of representing, analysing and valuing a company. This reinforces the idea that these systems result from "formal investments" (Thévenot, 1985), for which the cognitive dimension allows actions to be co-ordinated within the social space that accepts and uses them. Nevertheless, there is also a second dimension, working alongside the first one, which emerges as these systems are used. As has already been seen when the work of analysts was described, financial categories are ways of representing the company, but also ways of considering the processes of acting upon this company, using axiological categories. Indeed, the systems also introduce a set of guiding principles and justifications for these, all of which are rooted in the financial theory of "value for the shareholder". This set of principles or Logos means that the company is not a tool for producing commodities to be sold on the market, but rather is a commodity itself, which can be traded on a market.

"(Value creation for Private Equity funds) relies on the results, the EBITDA, which rises and falls. Everything hinges on the EBITDA. The increase in EBITDA is what counts (…). ***If you manage to buy (the company), for a reasonable price, and you convert it into nuggets that everyone fights over…"*** (A Private Equity investor)

"Investment funds have filled a void; this has created a secondary market. This allows directors to remain as directors and to liquidate part of the capital (which otherwise is a dangerous thing to do) and the capital can breathe. (…)The important thing is where the capital is located (…). Capital that does not breathe, that is fixed in place. The company is dead (…). The capital must be given fresh air, it should change hands. As soon as the capital changes hands, this allows for my modest team to get involved. After I've got involved, things improve greatly for the company, since the capital has been suitably located and we are going to make sound decisions; ***this is because the capital has been cleaned and not because we stepped in with the management***" (An intermediary, investment banker).

As a result, together with the systems, this Logos is also disseminated, particularly through intermediaries in transactions, as this gathers people who are the most highly trained and handpicked for these systems, as well as being the ones who most regularly use these systems in their day-to-day work. This Logos, combined with the systems that structure

analysts' work as a game of abstract, intellectual modelling, produces both moral and professional categories as ways of understanding the composition of this work. The model for a "good professional" emerging from interviews and observations alike, is someone whose high degree of expertise enables the person to perform the expected tasks, which are that of numerous, good quality transactions, in terms of being complex and of significant scope.

"The thing I like is working on major deals. It's enjoyable. It's glamorous. For example, the acquisition of Sigram by Pernod-Ricard or the acquisition of Orange by France Telecom(...). I would come out of our offices, and all around there was excitement and energy relating to the deal, which is one of the things that really drives you in this sort of job. And while I was learning the technical elements from a team, the atmosphere was overwhelming, since we were contributing towards major deals" (A Private Equity investor, talking about his experience as a lender)

"Making (or taking part in) a deal", as it is referred to in indigenous language, therefore constitutes the professional work of art as defined by H. Becker (1988). It is the guiding principle for all work and career paths, and is combined with peer recognition, both as an informal reputation on the one hand and an official rank in league tables on the other. Through this, there becomes evident another performative effect of the systems, namely that by feeding a model of professionalism which is based on accomplishing transactions, those who identify with it begin to construe a potential "deal" in every company. As such, they create in their own way, a market for mergers and acquisitions. The following provides the description given by several analysts regarding the dramatic growth of the mergers and acquisitions market that culminated in 2007. Teams of investors (especially those in Private Equity), intermediaries, reporting accountants and lenders, in a bid to remain at the top of professional ranking systems or simply to receive recognition from their team, company or field, attempted "at all costs" to accomplish deals, using the systems for measuring the "value" in order to convince themselves and, convince others how appropriate these systems were, all by professionally imitating others without facing oppositional views (DiMaggio and Powell, 1983).

"In 2007, deals became increasingly aggressive. The bank's philosophy was to be selective, but to sell (loans). It is essential to stay in the market (remain in the league tables). (…) (The

bank) tells us: choose assets that you believe in (…). So we tried to do just that (…). ***We used Excel and it was important to believe that the business would grow (together) with its valuation.*** *There was a lot of structuring carried out by banks, which involved very aggressive young people and in which it was essential that deals were made. Based on Excel. It's a bubble. You were establishing things that the market (investors and competitors) were willing to accept even if you did not agree with it yourself. You were giving the market what it wanted (leverage effects that would grow continually) (…) Analysts would ask questions, but the real question was "isn't that little guy next to me going to offer something more aggressive?" (…) And others (analysts) would think: their story is believable (the business plan and the values presented by the companies who are to be financed). They believed it would work... It's the financial bubble: you're in the bubble. Together we believe that business plans will grow"* (A lender, specialised in financing Private Equity funds).

This principle, which took hold during a period when liquid assets (equity and funding) were readily available, caused the price of transactions to increase; when the values assigned to transactions were calculated as very high, this resulted in higher selling prices, in an environment in which teams of investors were competing. What is more, these high prices automatically led to an increase in valuation multiples. In turn, given the multiples approach and DCF analysis (which forecasts a long-term multiple) that are used to measure value for the following transactions, this caused, on average, a continuous increase in prices until the financial crisis in 2008.

5.3. The boundaries of "value creation"

As a result, disseminating these systems for measuring value creates a social space in which there are shared both the cognitive tools that facilitate joint action, and the professional categories that define a good worker. Once again, this presents the idea of a social world shaped by a professional universe, as formally defined by H. Becker in relation to art worlds (1988). The boundaries of this professional group (Abbott, 1988) also demarcate the boundaries of "value creation". The intermediaries encountered all say they enjoy working with "professional" clients, in that they share the same conventions and the same professional model. These particular clients are investors in Private Equity funds, the vast majority of whom are characteristically former analysts for intermediaries, reporting

accountants or lenders. They may also be company directors or Chief Financial Officers, who have previous experience in the mergers and acquisitions sector. With these clients, the transactions are simple, since “we understand each other”, “we speak the same language”. On the other hand, (and as in art worlds), they find it a lot more difficult and even dread having to work with clients who could be classed as amateurs, in their opinion. An archetypal example is the boss of a provincial SME, who set up and developed his business from nothing, and since there is no successor, is trying to sell the company. With these sorts of people, it is difficult to talk about “value” and “deals”. They are attached to their company, their territory and their employees. They may reject a takeover bid because they do not like the buyer or because the buyer has plans to completely alter the business, in order to “create value”, which is not to their liking. These bosses may even have another definition of what constitutes the value of their company, which differs from the financial “value”.

The social space is formed by M&A intermediaries and those upon whom the dissemination of the systems for measuring “value” have had a significant effect (Chief Financial Officers, auditors, business lawyers, etc.). This space therefore shapes the area in which the “value” of transactions can be performed. Outside this area, the value is indefinite and therefore does not form a market per se.

Conclusion:

This analysis of the mergers and acquisitions market in France reveals that this market could not exist without cognitive, normative and metrological tools. Using these tools, the category of “value for the shareholder” can be created and legitimised, as well as being foregrounded through appropriate measures. They also establish a group whose expert use of these tools becomes their professional art. What is more, by situating themselves as intermediaries in this market, they play a part in creating the market, through animating it from within. These results confirm what sociology can contribute towards a critical analysis of markets.

Given these results, it is also possible to draw up conjectures in order to understand financialization, in terms of developing financial means of understanding and acting on the economy. Handling the M&A market relies on measurement systems, as tools for

quantifying and performing calculations, which cannot be broken down into their physical and technical attributes. They are collective, cognitive frameworks that are conventions for co-ordinating actions. But they also apply categories for understanding the company as a commodity, hence making it possible to create capital value, through optimising various parameters that can be mathematically modelled. As they are endorsed, used and disseminated, these systems spread the financial Logos within ever growing circles. This process of spreading is not only ideological, but also practical, in that implementing the systems produces what they express, that is "value creation".

Nevertheless, while this performativity is key to understanding the dynamics, this is only valid for short periods of time. Although the systems provide transactions and companies with a "value", it may be that over time this "value" turns out to not be in line with the conjectures of the model, if some groups focus, using their own measurement systems, on measuring this difference between the values. This is perhaps material for a new market.

Abbott, A., 1988, *The system of the Professions. An Essay on the Division of Expert Labour*, Chicago, University Press.

Austin, 1955 , *Quand dire c'est faire*, Paris, Seuil, French translation, 1970.

Becker, H., 1988, Les mondes de l'art, French translation, 2010, Paris, Flammarion.

Berry, M., 1983, *Une technologie invisible ? L'impact des instruments de gestion sur l'évolution des systèmes humains*, CRG, Ecole Polytechnique.

Bessy, C., Chauvin, P.M., 2013*, "*The Power of Market Intermediaries: From Information to Valuation Processes*", Valuation Studies*, 1(1), p. 83-117.

Bezes, P., Siné, A., 2011, *Gouverner (par) les finances publiques*, Paris, Presses de sciences Po.

Boussard, V., 2001, "Quand les règles s'incarnent. L'exemple des indicateurs prégnants", *Sociologie du Travail*, 43, 533-551.

Boussard, V., 2008, *Sociologie de la gestion. Les faiseurs de performance*, Paris, Belin.

Boussard, V., Maugeri, S., (eds.), 2003, *Du Politique dans les Organisations*, Paris, L'Harmattan.

Callon, M., 1998, "Introduction: The embeddedness of economic markets in economics" in Callon M., (eds.), *The laws of the Market*, Oxford, Blackwell Publishers.

Callon, M., Latour, B., 1990, (eds.), *La science telle qu'elle se fait. Anthologie de la sociologie des sciences de langue anglaise*, Paris, La découverte.

Callon, M., Muniesa, F., 2010, "La performativité des sciences économiques", in *Traité de sociologie économique*, Steiner P. et Vatin F., Paris, PUF.

Chauvin, P.-M., 2011, "Architecture des prix et morphologie sociale du marché : le cas des Grands Crus de Bordeaux", *Revue française de sociologie*, 52, 2, p. 277-309.

Chiapello, E., 2005, "Les normes comptables comme institution du capitalisme. Une analyse du passage aux normes IFRS en Europe à partir de 2005", *Sociologie du Travail*, juillet-septembre, vol. 47, n° 3, pp. 362-382.

Chiapello, E., Medjad, K., 2007, "Une privatisation inédite de la norme : le cas de la politique comptable européenne", *Sociologie du travail*, 49, p. 46-64.

Cochoy, F., Dubuisson-Quellier, S., 2000, "Les professionnels du marché : vers une sociologie du travail marchand", *Sociologie du travail*, n°42, p. 359-368.

Conein, B., 1994, Introduction, "Travail et cognition", numéro spécial, *Sociologie du travail*, n°4, p. 419-425

Conein, B., Dodier, N., Thévenot, L., 1993, (eds.), Les objets dans l'action. De la maison au laboratoire, *Raisons pratiques,* n°4, Paris, éditions de l'EHESS.

Desrosières, A., 1993, *La politique des grands nombres. Histoire de la raison statistique*, Paris, La découverte

Dezalay, Y. and Garth, B., 1998, *Dealing in Virtue: International Commercial Arbitration and the Emergence of a New International Legal Order*, University of Chicago Press, 1996 (paperback edition, 1998).

DiMaggio, P.J., Powell, W.W., 1983, "The Iron Cage revisited; Institutional Isomorphism and Collective Rationality in Organizational Fields", *American Sociological Review*, vol. 48, 147-160.

Dodier, N., 1993, "Les appuis conventionnels de l'action. Elements de pragmatique sociologique", *Réseaux*, 93, Vol. 11, n°62, p. 63-85.

Espeland, W., Sauder, M., 2007, "Rankings and reactivity : How public measure recreate social worlds", *American journal of sociology* », vol. 113., 1, p. 1-40.

Eyraud, C. , 2003, "Pour une approche sociologique de la comptabilité. Réflexions à partir de la réforme comptable chinoise", *Sociologie du travail*, n °4, p 491-508.

Fligstein, N, 1990, *The transformation of corporate control*, Cambridge, Mass., Harvard University Press.

Fligstein, N., 2001, *The Architecture of Markets*, Princeton, Princeton University.

Fourcade, M., 2009, *Economists and Societies: Discipline and Profession in the United States, Britain and France, 1890s-1990s*, Princeton University Press.

Freidson, E., 1986, *Professional Powers, a Study of Institutionalization of Formal Knowledge, Chicago*, University of Chicago Press.

Garcia, M.F., 1986, "La construction sociale d'un marché parfait : le marché au cadran de Fontaines-en-Sologne", *Actes de la recherche en sciences sociales*, 65, p. 2-13.

Gill, M., 2009, Accountants' Truth: Knowledge and Ethics in the Financial World, Oxford University Press.

Girin, J., 1983, "Les machines de gestion", in Berry M., *Une technologie invisible ? L'impact des instruments de gestion sur l'évolution des systèmes humains*, CRG, Ecole Polytechnique.

Godechot, O., 2001, *Les traders : essai de sociologie des marchés financiers*, Paris, La découverte.

Godechot O., 2009, "Concurrence et coopération sur les marchés financiers", in *Traité de sociologie économique*, Steiner P. et Vatin F., Paris, PUF .

Hatchuel, A., Weil B., 1992, *L'expert et le système*, Paris.

Hatchuel, 1995, "Les marchés à prescripteurs. Crise de l'échange et genèse sociale", in Jacob A., Vérin H., (éds.), *L'inscription sociale du marché*, Paris, L'Harmattan.

Karpik L., 2007, *L'économie des singularités*, Paris, Gallimard, NRF.

Knorr-Cetina, K., 2005, "How are global Markets Global? The Architecture of a Flow World", in The Sociology of Financial Markets, Knorr-Cetina, K., Preda, A., Oxford University Press.

Lascoumes, P. et Le Galles, P., (eds.), 2004, *Gouverner par les instruments*, Paris, Presses de la Fondation Nationale des Sciences Politique.

Lazega, E., 1999, "Le Phénomène collégial : Une théorie structurale de l'action collective entre pairs", *Revue Française de Sociologie*, n° 4, 40:639-70

Lebaron, F., 2000, *La croyance économique : les économistes entre science et politique*, Paris

Lordon F., 2000. "La 'création de valeur' comme rhétorique et comme pratique. Généalogie et sociologie de la 'valeur actionnariale' ", *L'année de la régulation*, vol. 4, pp. 117-165

Maugeri, S., 2001, (eds.), *Délit de gestion*, Paris, La dispute.

MacKenzie, D., Millo, Y., 2003, “Constructing a Market. Performing theory: the historical Sociology of Financial Derivatives Exchange”, *American Journal of Sociology*, vol. 109., n° 1, July, pp. 107-145.

MacKenzie, D., 2004, “The big, bad wolf and the rational market: Portfolio insurance, the 1987 crash and the performativity of economics”, *Economy and society*, 33 (3), 303-334

Metzger, J.-L., Benedetto-Meyer, M., (eds.), 2008, *Gestion et sociétés. Regards sociologiques*, L'Harmattan, coll. “Sociologie de la gestion”

Meyer, M., 1994, “Measuring Performance in Economic Organizations, in The Handbook of Economic Sociology”, in Smelser, N.J., Swedberg, R., (eds), *The Handbook of Economic Sociology*, Princeton, Princeton University Press

Moisdon, J.-C., 1997, *Du mode d’existence des outils de gestion*, Paris, Seli Arslan

Montagne, S., 2006, *Les fonds de pension. Entre protection sociale et spéculation financière*, Odile Jacob, Paris

Muniesa, F., 2005, “Contenir le marché : la transition de la criée à la cotation électronique à la Bourse de Paris”, *Sociologie du travail*, p. 485-501

Orléan, A., 1989, “Pour une approche cognitive des conventions économiques”, *Revue économique*, n°2.

Orléan, A. 2005, *Le pouvoir de la finance*, Odile Jacob., Paris.

Orléan, A., 2011, *L’empire de la valeur, Refonder l’économie*, Paris, Seuil.

Power, M., 1997, *The Audit Society: rituals of verification*, Oxford University Press, New York.

Segrestin, D., 2004, *Les chantiers du manager*, Paris, Armand Colin.

Steiner, P., 2005, *La sociologie économique*, Paris, La Découverte, coll. « Repères ».

Thévenot, L., 1985, “Les investissements de forme”, *Conventions économiques, Cahiers du CEE*, n°29, PUF.

Useem, M., 1996, *Investor capitalism. How money managers are changing the face of Corporate America*, New York, Basis Books.

Vatin, F., 2009, “Evaluer et valoriser”, in Evaluer et valoriser: une sociologie économique de la mesure, Vatin F (eds.), Toulouse, Octarès.

Walter, C., 2011, “Performation et surveillance du système financier”, *Revue d’économie financière*, n° 101, janvier-mars, pp. 105-116.